

1981
ANNUAL REPORT
INSECT AND DISEASE CONDITIONS IN WEST VIRGINIA
TO

THE UNITED STATES FOREST SERVICE, MORGANTOWN, WV

Looper Complex

During June of 1981 approximately 1½ million acres of hardwoods were defoliated in West Virginia by linden looper Erannis tililiaris, half-wing geometer Phigalea titea, fall cankerworm Alsophila pometaria, and oak leaf rollers and tiers. The forest tent caterpillar and catacola sp. were also found in abundance. The linden looper and half-wing geometer were the major defoliators. One million acres of defoliation occurred to the Eastern Panhandle Counties of Berkeley, Morgan, Hampshire, Mineral, Hardy, Grant and Pendleton. One-half million acres defoliation were found in Cabell, Wayne and Lincoln Counties (south west WV).

This was first time we have had any large scale defoliation like this in WV.

The oaks were affected the most with white oak being the hardest hit. No control measures planned. Will probably be abundant next year 1982.

Eastern Tent Caterpillar - Malacosoma americana

Populations were at an all time high this year in most areas of WV. The caterpillars in the Kanawha Valley did have evidence of the polyhedrous virus and I expect the populations have collapsed.

Fall Webworm - Hyphantria cunea - Abundant in extreme northern panhandle. Common throughout state but just occasional nest.

Locust leaf miner - Xenochalepus dorsalis - The leaf miner has apparently subsided in southern West Virginia few trees were brown. However the eastern and northern parts of the state experienced outbreaks. Also is moving into the mountain areas of Randolph, Tucker, Pocahontas, Nicholas, Webster and Greenbrier Counties.

Walking Sticks - Hard to find any specimens. Populations have subsided. (Turkeys are getting thinner need outbreak again.).

Sycamore lacebug - This insect is extremely heavy and caused sycamore throughout the state to turn a bronze color in mid-August. 2nd year for heavy damage.

Larger Elm leaf beetle - The beetle seemed to attack every elm in the state and caused complete defoliation in late August. 2nd year for defoliation.

Pine spittle bug = Heavy this year and can be found on most species of pines and spruce in most of state.

Periodical Cicada - None this year but largest brood in state due in 1982. Northern half of state will be affected. See brochure.

Gypsy Moth - There were 6,918 male moth catches in WV this year. Fourteen new county records for male moth catches. Counties are Randolph, Barbour, Preston, Taylor, Monongalia, Marion, Harrison, Wetzel, Marshall, Ohio, Brooke, Hancock, Pleasants and Wood.

Counties of Jefferson, Berkeley and Morgan are infested with 37 larvae being caught in June of 1981.

Additional trees are currently being burlap banded for monitoring purposes next year.

The areas where gypsy moth larvae were found was flown and no areas of defoliation were noted.

If the looper complex continues next several years it will be difficult if not impossible to tell if typsy moth is causing any defoliation.

PATHOLOGY SECTION

Dutch Elm Disease - Ceratocystis ulmi

Dutch elm disease is a serious forest and shade tree problem in West Virginia. Diseased trees have been observed throughout the state. Disease incidence appears to be most prevalent along the states major river drainages. Information concerning this disease is disseminated to the public via news releases, radio, television and pamphlets.

Oak Wilt - Ceratocystis fagacearum

Sixteen high oak wilt incidence quadrangles in the Eastern Panhandle and 20 high oak wilt incidence quadrangles in the southwestern section of West Virginia were flown during the summer. Disease incidence remained the same as last year. In addition, the following low incidence counties were flown: Randolph, Barbour, Upshur, Nicholas, Pocahontas, Monongalia, Preston, Marion, Taylor and Harrison.

Anthracnose of Hardwoods

Sycamore anthracnose incidence increased from a low level in 1980 to a moderate level in 1981. Diseased trees were observed throughout the state but few trees suffered extensive damage.

White oak anthracnose was observed causing moderate damage to white oaks in many sections of the state.

Maple anthracnose was observed causing moderate damage to maple trees.

Bullseye Leaf Spot - Cristulariella pyramidalis

Bullseye leaf spot incidence was moderate to heavy this year on maples, ash and other hardwoods. In Charleston, WV diseased

trees began defoliating by mid-July.

Actinopelte Leaf Spot - Actinopelte dryina

This disease was observed causing premature defoliation to several pin oaks and red oaks in Kanawha County.

Lophodermium Needlecast - Lophodermium pinastri

This needlecast was observed causing light damage to several Scotch pine plantings in the state.

Rhizosphaera Needlecast - Rhizosphaera kalkoffi

This disease was found for the first time ever in West Virginia during the summer of 1981. It was observed causing light damage to 10 Colorado blue spruce at a nursery in Morgan County. Control recommendations were provided to the nurseryman.

Diplodia Tip Blight - Diplodia pini

Diplodia tip blight was noted on red, Austrian, Scotch, pitch and table mountain pine throughout the state. Extensive damage was noted on individual trees.

Cytospora Canker - Cytospora kunzei

This disease has been observed causing extensive moderate to extensive damage to Norway spruce in the state. Usually only a few trees at any one location are diseased.

Atropellis canker - (Atropellis tingens)

Atropellis canker is a problem in several Scotch pine plantings in the state. Diseased trees appear flagged. Cankers on the flagged branches contain apothecia of the causal fungus. No main stem cankers were noted.

Annosus Root Rot - Heterobasidium annosum

Annosum root rot is known to occur in several conifer stands in the state. Losses have been marginal in most of these stands. At the Clover Lick Run plantation the most serious losses were a result of blow down of diseased trees.

Pin Oak Blight - Endothia gyrosa

The causal fungus has been found fruiting on pin oak trees at a number of locations. At no location was the disease severe. We have not observed losses in West Virginia like those reported in the Tidewater, Virginia area.

Pinewood Nematode - Bursaphelenchus lignicolus

The nematode has been isolated from dying conifers in 9 different counties including:

Kanawha County	- - - - -	Scotch Pine
Hampshire County	- - - - -	Scotch Pine
Pocahontas County	- - - - -	White Pine
Lewis County	- - - - -	Scotch Pine
Monroe County	- - - - -	Red Pine
Mineral County	- - - - -	Scotch Pine
Cabell County	- - - - -	Austrian Pine
Greenbrier County	- - - - -	White Pine
Putnam County	- - - - -	Austrian Pine

Surveys will continue to locate the nematode in other counties and add new hosts to the list.

Pine Root Decline - Verticicladiella procera

White pine root decline continues to be a problem in many of our white pine plantations. Furthermore, this disease has been observed on occasional native trees in Greenbrier and Raleigh Counties. Surveys will continue to ascertain the range and impact

of this disease in West Virginia. We have also been able to isolate this pathogen from dying red pine in Mercer County.

Air Pollution

Air pollution symptoms were not nearly as evident this year as they had been in past years. Occasional trees displaying symptoms of oxidant pollution damage were observed in the southern and eastern portion of the state.

Steganosporium Canker - Steganosporium sp.

Steganosporium canker was observed causing branch mortality on sugar maple sapling and pole sized trees. The fungus was observed fruiting on the dead branches

Phytophthora Root Rot - Phytophthora cinnamomi

The fungus Phytophthora cinnamomi was isolated from dying Frazier fir seedlings in a plantation at Rock Cave, Upshur County. The grower had experienced moderate losses to date. Other Christmas tree growers in the state have experienced mortality problems with their Frazier fir. Some of these problems can be attributed to herbicides or site. However, we expect that some growers are having problems with Phytophthora root rot.